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ABSTRACT

This paper attempts to synthesize a variety of instructional models in a way which builds upon the contributions of existing theory, while establishing a focus on the purposes, needs, motives and interests of the learner. A table of seven contemporary models provides brief descriptions and illustrative references. These models are discovery, instructional technology, interaction, mastery, microteaching, meaningful reception, and significant learning. The author then sets forth two detailed lists of questions which may be asked by the teacher and the student in a self-directed approach synthesized from the above models. (RT)

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Beginning Notes Toward A Conceptualization of Learner-Controlled Instruction[1]

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During the last decade, a variety of models and theories of instruction have been developed. It is not clear, however, that the practice of education has been greatly influenced by these efforts, and, in general, we concur with Bruner's assertion:

> Despite the books and articles that are beginning to appear on the subject, the process of education goes forward today without any clearly defined or widely accepted theory of instruction. We have had to make do and are still making do on clever maxims and moralistic resolutions about what instruction is and should be. (1971, p. 98)

In addition, when surveying the work which has been done in this area, one must conclude that the ideas of different theorists will lead us in quite different directions. As Halstead (1970) observed, each of the models involves a fundamentally different view of what should occur in a productive learning situation, and may also be concerned with quite different goals and objectives. Although it may appear somewhat cynical, it seems fair to predict that the result of this diversity will be confusion.

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Finally, we have become increasingly concerned with "relevance" during the last decade, and so have had to deal with the difficult problem of deciding the extent to which the learner should have control over the content and implementation of instruction. This issue, which is unfortunately often oversimplified as the question of "freedom," has had farreaching implications for educational practice at all levels, and so, must be considered in the formulation of any model of instruction.

The purpose of this paper is <u>not</u> to add another theory or model to the collection. Instead, we hope to raise the question: "How can a variety of models be synthesized in a way which will build upon the contributions of existing theory, while, at the same time, will establish a focus on the purposes, needs, motives,or interests of the learner?" Our first task will be to review very briefly a number of contemporary approaches to instruction, and then, to construct several sets of questions which may be useful from the learner's point of view, as well as the teacher's, in designing, implementing, and evaluating instruction.

We assume several things initially:

(1) that <u>teaching</u> is not an end in itself, nor necessarily equivalent to instruction;

(2) that the purpose of a model of instruction is ultimately to specify strategies for establishing conditions in which <u>growth</u> and <u>learning</u> will occur,and means for evaluating those strategies;

(3) that it is possible to abstract a general approach to instruction which is not limited to the content of a particular "discipline."

Although our concern is for a general view of instruction, we should note that this problem seems particularly important in the context of instruction in educational psychology, if one assumes that the educational psychologist, often known for his research and theory on instruction, should also be viewed as an exemplary practioneer of his discipline.

Contemporary Models of Instruction

In Table 1, we have summarized several contemporary models of instruction, with only brief descriptions; we assume that the reader is generally familiar with most, if not all, of these widely-discussed views.

Among the seven general models of instruction represented in Table 1, a variety of emphases can be seen. Some models, such as Discovery, Significant Learning, and, more indirectly, Interaction, stress the importance of self-direction. These emphasize the involvement of the learner during all phases of instruction, from the identification of goals and objectives through evaluation. They are importantly concerned with the development of processes, thinking abilities,and, quite often, with social or interpersonal and affective growth. Others, notably Instructional Technology, Mastery, and, also more indirectly, Microteaching stress the importance of the structure of the material to be learned, the clarity of instructional objectives, the relationships among objectives, instructional procedures, and evaluation. Although Meaningful Reception involves the development and utilization of complex cognitive skills, its greatest emphasis appears also to be on matters of content structure and organization. The Interaction model, with its emphasis on analysis of

interpersonal verbal communication, and the Microteaching model, with its emphasis on the improvement of well-defined skills, appear to be most directly concerned with the effects of variations in the instructional process or sequence itself.

Is it possible, then, to construct an view of instruction which considers several of these emphases? Is it possible to be concerned with self-direction, the identification of specific goals and objectives, and the development of broad cognitive skills as well as specific performances? The questions presented in Tables 2 and 3 are some which may be asked by the teacher and the student in a self-directed approach. Table 2 expresses questions which the learner may raise, and Table 3 presents questions for teachers which are parallel to those of the learner. The view of the teacher as "facilitator" (cf. Rogers, 1969) rather than as "dispenser of knowledge and rewards" initially may be uncomfortable for many professors of educational psychology (or any other area), but when there is a genuine commitment to foster learning in the individual student, the role becomes less threatening. The professor assumes a very different role from that traditionally defined, but it can be an exciting, productive role. We doubt that very many of our colleagues really enjoy the role of adversary. Several implications of this view of instruction, as well as a brief description of our recent efforts to translate this approach into a set of instructional procedures may be found in Treffinger and Davis (in press); we have also developed a set of materials for a self-directed or learner controlled approach to instruction in educational psychology (Treffinger and Davis, 1971).

Table 1:

Selected Models of Instruction

General Descriptor	Illustrative References	General Emphases
A. DISCOVERY	Bruner (1960, 1966)	Self-directed learning and the development of broad cognitive skills.
B. INSTRUCTIONAL TECHNOLOGY	Glaser (1962) DeCecco (1968) Mager (1962) Popham and Baker (1970)	Organization of instruction in relation to specified objectives, hierarchical arrangement of content, assessment of entering behavior, and frequent evaluation.
C. INTERACTION	Flander (1970) Amidon and Hunter (1966) Amidon and Hough (1967)	The importance of teacher-pupil interaction and the development of self-direction through indirect teaching influence.
D. MASTERY	Carroll (1963) Bloom (1968) Bloom, Madaus, and Hastings (1971) Block (1971)	Common attainment of specified objectives for all students, with variation in time spent by each student.
E. MICROTEACHING	Allen and Ryan (1969)	Helping students attain specified objectives and develop specific skills through supervised practice efforts.
F. MEANINGFUL RECEPTION	Ausubel (1968) Ausubel and Robinson (1969)	Presentation of content in meaningful units, with highly general advance organizers, stressing effective integration of new material into cognitive structure.
G. SIGNIFICANT LEARNING	Rogers (1969)	Self-initiated learning, personal involvement of the learner, and the teacher's role as guide or facilitator rather than as "dispenser."

Table 2:

A Learner-Controlled View of Instruction:

Student Questions

Set I: What do I want to learn? (These questions deal with establishing long-range goals and developing immediate objectives.)

- I-1 What are my goals?
- I-2 How can I translate my long-term goals into specific, short-range objectives?
- I-3 How can I communicate my goals and objectives to others?
- I-4 What will I do if my goals and objectives change?
- I-5 What are the resources in my grasp which will be required to meet my objectives?
  - I-5a Are there sufficient resources?
  - I-5b Are the needed resources available?
- I-6 In view of my own abilities and skills, are the long-range goals realistic and are the immediate objectives attainable?

Set II: How will I learn what I want to know? (These questions deal with the identification and implementation of instructional procedures.)

- II-1 What knowledge (facts and ideas) will it be necessary for me to attain?
- II-2 What reading should I do to acquire the necessary information and comprehend the basic ideas which relate to my goal?
  - II-2a How can I evaluate the literature and decide what is worth reading?
  - II-2b Should I begin by looking at other peoples' ideas, or begin on my own and look back later?
- II-3 With whom should I communicate about the knowledge which is related to this problem?
  - II-3a Should I seek the opinions of "experts"?
  - II-3b Should there be some written product?
  - II-3c Who else is interested in this problem?
- II-4 What else can I do, besides reading, writing, talking, and listening?
  - II-4a Are there opportunities for me to develop or practice skills?
  - II-4b In what ways might observation be useful? Where? Of whom? When?
  - II-4c Can I test my ability to apply, analyze, synthesize, evaluate my ideas about what I've learned?
  - II-4d Are there case studies, exercises, films, instructional programs, or other resources which will facilitate my learning? If so, how can I obtain them? Who will assist me, and in what way?

(Table 2 continued)

II-5 Should I attempt to integrate my work on this problem in the form of some product?
- II-5a If so, what kind of product?
- II-5b If a product, for whom? When?

Set III: How will I know when I have really attained my goal? (These questions deal with evaluation, whether self-evaluation or evaluation by another person or group.)

III-1 Should I employ some formal evaluation procedure?
- III-1a Will some test of knowledge be useful?
- III-1b Will someone be able to assess my ability to solve problems?
- III-1c How do I feel about my goals and objectives? (Affective domain)

III-2 Should I seek a critic?

III-3 Who can assist me in evaluation, and how?
- III-3a Can my peers assist?
- III-3b Can a teacher assist?
- III-3c Are there some aspects of evaluation which I can and should do myself?

III-4 What is the importance of measurement in evaluating my performance?

III-5 Was it worth it?
- III-5a Were my goals worthwhile?
- III-5b Were my objectives appropriate?
- III-5c Were my activities beneficial?
- III-5d Did I modify my goals and objectives in a constructive way?
- III-5e Did any new goals and objectives become clear to me?

Set IV: What will I do with what I have learned? (These questions deal with the general application of what is learned after the instructional episode.)

IV-1 Will I communicate my accomplishment to others? (To whom? When? How? Why?)

IV-2 What problems have been solved?

IV-3 How will this effort (product?) be useful to me in my (future?) work?

IV-4 What are some specific ways in which I can use what I have learned?

IV-5 What new problems and goals have been identified?

Table 3:

A Learner-Controlled View of Instruction:

Teacher Questions

Set I: What do students need and want to learn? (These questions deal with the problmes of establishing long-range goals and developing immediate objectives.)

I-1 What is there in (my area) that is worth knowing?
- I-1a What is its value to the student?
- I-1b What are the problems with which my area is concerned which interest students?
- I-1c How do I know that anyone is helped by studying these topics?

I-2 What are the problems which are most urgent in our world, our society, or our campus, which constitute real concerns for students?
- I-2a What does this area of study have to do with any of these?

I-3 What can be done to help the student who comes by force (i.e., to a "required" course)?
- I-3a Shall I attempt to motivate him to pursue some things which I think are important?
- I-3b How can I find out what does concern him, and relate it to things he might study?

I-4 What can be done to help the student who is interested in many problems, but cannot clarify his goals or translate them into manageable problems?
- I-4a How are goals translated into immediate objectives?
- I-4b How can I help students identify and arrange the priorities of their efforts toward various goals? accurately assess the available resources?
- I-4c How can I help students express their immediate objectives in ways which will communicate effectively with others?

I-5 What can I do to help the student who is "interested in everything" make reasonable choices and organize his efforts?

I-6 How can I help students plan their work in such a way that their activity will be goal-directed, rather than just an attempt to "find out and play by the rules of the game?"

(Table 3 continued)

Set II: How can I assist the student in reaching his goals? (These questions deal with the identification and implementation of instructional procedures.)

- II-1 How can I help the student acquire knowledge in a meaningful way?
  - II-1a What role should reading play?
  - II-1b Can I help the student organize his reading, and select worthwhile reading?
  - II-1c What is the role of lecture?
  - II-1d What other ways (beside reading, or listening to me) can be used to help the student acquire knowledge?
- II-2 What are the purposes and values of written assignments?
  - II-2a Do written papers serve any useful purpose?
  - II-2b Can I communicate with the student in a way which will assist him, not merely judge him?
  - II-2c Can I help the student to identify written products other than term papers, book reports, or critical essays?
  - II-2d What should I be writing to the student? What kind of feedback will be most valuable for him?
- II-3 In what ways can the student communicate with me (e.g., by the use of films, slides, tapes, etc.)?
  - II-3a Can I help the student select media which are appropriate for his purposes?
  - II-3b What kind of feedback will be most useful?
  - II-3c Should these efforts be evaluated? If so, how?
- II-4 Can I assist the student in identifying, locating, and working with other students, faculty, people in the profession or community, who will be able to assist him in reaching his goals?
  - II-4a Who would be important for him to meet?
  - II-4b How can that be arranged?
  - II-4c Will other students share the student's interest, so that field trips or group meetings should be arranged?
- II-5 What resources are available to assist the student (e.g., case studies, films, recordings, etc.), what special opportunities (films, campus or community guests, lecturers, special places in or near the community, etc.), which could be used to help the student reach his goals?
- II-6 How can I provide the student by creating (or using) resources which provide for review of knowledge, or practice in the development, application, or evaluation of skills or abilities?
- II-7 Can I help the student to find creative ways of carrying out projects and activities he designs?
- II-8 Can I help the student acquire cognate skills which are necessary for successful implementation of his ideas for projects or activities? (e.g., learn observation and analysis skills, or interviewing procedures)

(Table 3 continued)

II-9 How can I help the student relate effectively his selection of instructional procedures to his goals and objectives, rather than merely engage in "busywork" to meet course demands?
II-10 How can I help the student relate his goals and activities to his work in other courses?

Set III: How can I assist the student in assessing the adequacy of his performance? (These questions have to do with evaluation.)

III-1 What is the purpose of evaluation?
  III-1a What is the relationship among goals, procedures, and evaluation?
  III-1b What are the bases for judgments concerning the quality of student performance?
III-2 What should be the student's role in evaluation?
  III-2a Can criteria for effective self-evaluation be established and applied?
III-3 What is the relationship between evaluation and measurement?
  III-3a How can tests be most effectively utilized in promoting learning among individual students?
  III-3b Is what is measured consistent with the student's objectives?
  III-3c What does a "low score" on a test mean? What should happen as a result?
III-4 What is the relationship between evaluation and grading?
  III-4a Whose responsibility is the grade in learner-controlled instruction?
  III-4b Is grading necessary?
  III-4c Why not give everyone an A?
  III-4d Who fails when a student "fails"?
III-5 How can complex skills and abilities be assessed?
III-6 When is my course, and my "teaching," most successful?
III-7 How can students evaluate their goals and objectives as well as their performance?

Set IV: What will they do with what they have learned? (These questions deal with the application of what is learned in settings outside the "class.")

IV-1 What responsibilities do I have for my students after they leave my "course"?
IV-2 What have students learned, and how do they use it?
  IV-2a Is learner-controlled instruction any different from any other "approach"? If so, how?
IV-3 How can I help them identify new problems and goals?

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